

#### ABSTRACT OF DISCLOSURE

The present invention can further enhance the light emission characteristics of phosphor excited by the irradiation of electron beams of high density. In a cathode ray tube including a phosphor film, a faceplate panel which constitutes a screen, an aluminum vapor-deposited film, a funnel and an electron gun, phosphor which constitutes the phosphor film applied to the faceplate panel is constituted of a terbium activated phosphor which is produced by substituting a portion of yttrium (Y) in base material crystals which contain zinc (Zn), yttrium (Y), silicon (Si) and oxygen (O) as main constitutional elements with terbium ion ( $Tb^{3+}$ ) and a trace amount of rare earth element ion is added to the terbium activated phosphor.